Author Index

Anderson, I. E., 167
Ardell, A. J., 197
Armstrong, R. W., L25
Arsenault, R. J., 37
Aswath, P. B., L5

Bai, Y. L., 81
Bayerlein, M., L11
Butler, Jr., J. F., L29

Cao, Z. B., 7
Chen, S., 159
Chi, Y. C., 105
Cho, K., 105
Christ, H.-J., L11
Cutler, L. R., 73

Duffy, J., 105

Faderl, J., 173
Falk, M., 209
Farhangi, H., L25

Gottstein, G., 21
Gu, H.-C., 89
Guo, Z. X., 97

Han, J. M., 51
Herley, P. J., L1
Howes, V. R., 1
Hu, H., L29
Huang, X. L., 81
Hwang, K.-H., 61

Jankowski, A. F., L17
Jeng, S. M., 189
Jones, W., L1

Kai, W., 189
Kalenderoğlu, V., L35
Karmazin, L., L21
Karunanithy, S., 209
Kim, Y. G., 51
Kotter, G., 29
Kroupa, A., L21

Laird, C., 89
Lang, E., 147
Lee, J. K., 61
Lee, J. S., 51
Lee, S., 105
Lee, T., 21
Lehner, F., 173
Li, J., 127
Li, P. E., 7
Li, S., 37
Li, Y.-Y., 179
Liou, L., 205
Liu, R., 127
Lupinc, V., 147

Marucco, A., 147
Mughrabi, H., L11

Nagai, H., 13
Nembach, E., 29
Nembach, K., 29

Oikawa, H., 13

Palmetshofer, L., 173
Park, J. K., 197
Plichta, M. R., 61

Regnault, W. F., L25
Ridley, N., 97
Ryan, M. A., 1

Schmidt, U., 21
Sekhar, J. A., 133
Shen, P., 159
Shih, C. J., 189
Smith, I. O., 73
Sun, X.-K., 179
Suresh, S., L5
Svoboda, M., L21

Takahashi, T., 13
Tan, M., 205
Trivedi, R., 133

Vardar, Ö., L35

Wallow, F., 29
Wang, Z. G., 81
Wright, R. N., 167

Xing, D., 81
Xu, J.-A., 179
Xu, Y. B., 81

Yang, J.-M., 189

Zhang, G.-W., 1
Zhang, J.-P., 89
Zhang, S.-F., 89
Zhao, J., 7
Zhou, H.-J., 89
Zhu, S. J., 7

© Elsevier Sequoia/Printed in The Netherlands

Materials Science and Engineering, A114 (1989) 229–231

Subject Index

Aging
  effect of prior aging on the creep crack growth behaviour of austenitic HK40 steel, 7
Alloys
  composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51
  composition of phases present in hypereutectoid low alloy steel at temperatures within and around the eutectoid zone, L21
  correlation between microstructure and calorimetric behavior of aluminum alloy 7075 and Al–Zn–Mg alloys in various tempers, 197
  effect of precipitation on internal friction of rapidly solidified Al–Si alloys, 205
  effect of thermomechanical treatments on short-range ordering and secondary-phase precipitation in Ni–Cr-based alloys, 147
  grain size gradient nickel alloys
    II: fatigue properties, 61
  stiffness constants and dislocation line energies and tensions of binary and ternary iron-rich Fe–Al–Si alloys, 29
  structural defects and microscopic mechanism of the high strength of amorphous alloys, 127
  transients occurring during stress dip experiments on creep of an Al–0.3wt.%Li alloy at 473 K, 73
Aluminium
  composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51
  correlation between microstructure and calorimetric behavior of aluminum alloy 7075 and Al–Zn–Mg alloys in various tempers, 197
  creep behaviour of polycrystalline intermetallic Ti–53.4mol.%Al, 13
  effect of precipitation on internal friction of rapidly solidified Al–Si alloys, 205
  fatigue crack growth behavior of a titanium aluminide intermetallic, L5
  interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
  stiffness constants and dislocation line energies and tensions of binary and ternary iron-rich Fe–Al–Si alloys, 29
  transients occurring during stress dip experiments on creep of an Al–0.3wt.%Li alloy at 473 K, 73
Austenite
  effect of prior aging on the creep crack growth behaviour of austenitic HK40 steel, 7
  hydrogen permeation behaviour in austenitic stainless steels, 179
  composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51

Boron
  dry wear behaviour of boron- and nitrogen-implanted steels, 173
  interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
Bulge forming
  modelling of superplastic bulge forming of domes, 97

Calorimetry
  correlation between microstructure and calorimetric behavior of aluminum alloy 7075 and Al–Zn–Mg alloys in various tempers, 197
Carbon
  composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51
  determination of SiO_2 in SiC whiskers by infrared absorption spectroscopy, 209
  interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
  microstructure of shear localization in low carbon ferrite–pearlite steel, 81
Chromium
  effect of thermomechanical treatments on short-range ordering and secondary-phase precipitation in Ni–Cr-based alloys, 147
Composites
  interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
Copper
  age-hardening behavior of dynamically consolidated rapidly solidified Cu–2%Zr powder, 167
Crack growth
  effect of prior aging on the creep crack growth behaviour of austenitic HK40 steel, 7
  fatigue crack growth behavior of a titanium aluminide intermetallic, L5
Creep
  consideration of dislocation density in terms of high-temperature creep, 37
  creep behaviour of polycrystalline intermetallic Ti–53.4mol.%Al, 13
  effect of prior aging on the creep crack growth behaviour of austenitic HK40 steel, 7
  transients occurring during stress dip experiments on creep of an Al–0.3wt.%Li alloy at 473 K, 73

Defects
  defect and phase analysis of scandium hydride by transmission electron microscopy, L1
  structural defects and microscopic mechanism of the high strength of amorphous alloys, 127
Deformation
  deformation temperature and recrystallization, 21
  plasticity-induced martensitic transformation during cyclic deformation of AISI 304L stainless steel, L11
  tensile deformation and fracture in high purity titanium: *in situ* observation by scanning electron microscopy, 89
Dislocations
  consideration of dislocation density in terms of high-temperature creep, 37

© Elsevier Sequoia/Printed in The Netherlands

stiffness constants and dislocation line energies and tensions of binary and ternary iron-rich Fe–Al–Si alloys, 29
Dissolution
effect of NiO dissolution on the transformation of plasma-sprayed Y-PSZ, 159
Domes
modelling of superplastic bulge forming of domes, 97

Eutectoid zone
composition of phases present in hypereutectoid low alloy steel at temperatures within and around the eutectoid zone, L21

Fatigue
fatigue crack growth behavior of a titanium aluminide intermetallic. L5
grain size gradient nickel alloys
II: fatigue properties, 61
Ferrite
microstructure of shear localization in low carbon ferrite–pearlite steel, 81
Fibers
development of solidification microstructures in the presence of fibers or channels of finite width, 133
interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
Fracture
effects of tempering and test temperature on the dynamic fracture initiation behavior of an AISI 4340 VAR steel, 105
tensile deformation and fracture in high purity titanium: *in situ* observation by scanning electron microscopy, 89
Friction
effect of precipitation on internal friction of rapidly solidified Al–Si alloys, 205

Grain size
grain size gradient nickel alloys
II: fatigue properties, 61
Groove formation
comparison of rolling and sliding groove formation, 1

Hardening
age-hardening behavior of dynamically consolidated rapidly solidified Cu–2%Zr powder, 167
Hydrogen
defect and phase analysis of scandium hydride by transmission electron microscopy, L1
hydrogen permeation behaviour in austenitic stainless steels, 179

Intermetallics
creep behaviour of polycrystalline intermetallic Ti–53.4mol.%Al, 13
fatigue crack growth behavior of a titanium aluminide intermetallic, 224
Iron
composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51
stiffness constants and dislocation line energies and tensions of binary and ternary iron-rich Fe–Al–Si alloys, 29

Lithium
transients occurring during stress dip experiments on creep of an Al–0.3wt.%Li alloy at 473 K, 73

Magnesium
correlation between microstructure and calorimetric behavior of aluminum alloy 7075 and Al–Zn–Mg alloys in various tempers, 197
Manganese
composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51

Nickel
effect of NiO dissolution on the transformation of plasma-sprayed Y-PSZ, 159
effect of thermomechanical treatments on short-range ordering and secondary-phase precipitation in Ni–Cr-based alloys, 147
grain size gradient nickel alloys
II: fatigue properties, 61
Nitrogen
dry wear behaviour of boron- and nitrogen-implanted steels, 173

Ordering
effect of thermomechanical treatments on short-range ordering and secondary-phase precipitation in Ni–Cr-based alloys, 147
origin of the supermodulus effect: artificial ordering considerations, L17
Oxygen
determination of SiO_2 in SiC whiskers by infrared absorption spectroscopy, 209
effect of NiO dissolution on the transformation of plasma-sprayed Y-PSZ, 159

Pearlite
microstructure of shear localization in low carbon ferrite–pearlite steel, 81
Permeation
hydrogen permeation behaviour in austenitic stainless steels, 179
Precipitation
effect of precipitation on internal friction of rapidly solidified Al–Si alloys, 205
effect of thermomechanical treatments on short-range ordering and secondary-phase precipitation in Ni–Cr-based alloys, 147

Recrystallization
deformation temperature and recrystallization, 21

Scandium
defect and phase analysis of scandium hydride by transmission electron microscopy, L1
Shear
microstructure of shear localization in low carbon ferrite–pearlite steel, 81
Silicon
determination of SiO_2 in SiC whiskers by infrared absorption spectroscopy, 209
effect of precipitation on internal friction of rapidly solidified Al–Si alloys, 205

interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
stiffness constants and dislocation line energies and tensions of binary and ternary iron-rich Fe–Al–Si alloys, 29
Solidification
age-hardening behavior of dynamically consolidated rapidly solidified Cu–2%Zr powder, 167
development of solidification microstructures in the presence of fibers or channels of finite width, 133
effect of precipitation on internal friction of rapidly solidified Al–Si alloys, 205
Steel
composition of phases present in hypereutectoid low alloy steel at temperatures within and around the eutectoid zone, L21
dry wear behaviour of boron- and nitrogen-implanted steels, 173
effect of prior aging on the creep crack growth behaviour of austenitic HK40 steel, 7
effects of tempering and test temperature on the dynamic fracture initiation behavior of an AISI 4340 VAR steel, 105
hydrogen permeation behaviour in austenitic stainless steels, 179
microstructure of shear localization in low carbon ferrite–pearlite steel, 81
plasticity-induced martensitic transformation during cyclic deformation of AISI 304L stainless steel, L11
Stiffness
stiffness constants and dislocation line energies and tensions of binary and ternary iron-rich Fe–Al–Si alloys, 29
Supermodulus effect
origin of the supermodulus effect: artificial ordering considerations, L17

Tempering
effects of tempering and test temperature on the dynamic fracture initiation behavior of an AISI 4340 VAR steel, 105
Tempers
correlation between microstructure and calorimetric behavior of aluminum alloy 7075 and Al–Zn–Mg alloys in various tempers, 197
Tensile properties
composition and temperature dependence of tensile properties of austenitic Fe–Mn–Al–C alloys, 51
Titanium
creep behaviour of polycrystalline intermetallic Ti–53.4mol.%Al, 13
fatigue crack growth behavior of a titanium aluminide intermetallic, L5
interface reaction studies of B_4C/B and SiC/B fiber-reinforced Ti_3Al matrix composites, 189
tensile deformation and fracture in high purity titanium: *in situ* observation by scanning electron microscopy, 89

Wear
dry wear behaviour of boron- and nitrogen-implanted steels, 173
Whiskers
determination of SiO_2 in SiC whiskers by infrared absorption spectroscopy, 209

Y–PSZ
effect of NiO dissolution on the transformation of plasma-sprayed Y–PSZ, 159

Zinc
correlation between microstructure and calorimetric behavior of aluminum alloy 7075 and Al–Zn–Mg alloys in various tempers, 197
Zirconium
age-hardening behavior of dynamically consolidated rapidly solidified Cu–2%Zr powder, 167